

ISS Microgravity Environment

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The Microgravity performance assessment of the International Space Station (ISS) is comprised of a quasi-steady, structural dynamic and a vibro-acoustic analysis of the ISS assembly-complete vehicle configuration. The Boeing Houston (BHO) Loads and Dynamics Team is responsible to verify compliance with the ISS System Specification (SSP 41000) and USOS Segment (SSP 41162) microgravity requirements. To verify the ISS environment, a series of accelerometers are on-board to monitor the current environment.

This paper summarizes the results of the analysis that was performed for the Verification Analysis Cycle (VAC)-Assembly Complete (AC) and compares it to on-orbit acceleration values currently being reported. The analysis will include the predicted maximum and average environment on-board ISS during multiple activity scenarios.